

PAPERS READ.

NOTE ON *EUCALYPTUS LEUCOXYLON* (F. v. M.).

BY W. WOOLLS, PH.D., F.L.S.

When Vol. III. of the *Flora Australiensis* was published, I was firmly persuaded that two very distinct species of *Eucalyptus* had been united together under the name *E. leucoxylon* (F. v. M.), the one representing a "White Gum" of Victoria and South Australia, and the other the "Red-flowering Iron-bark" of New South Wales (*E. sideroxylon*, A. Cunn. in Mitchell's Tropical Australia, p 339). Having subsequently had an opportunity of examining *E. leucoxylon* in a living state in Victoria, and the red-flowering variety of the same cultivated in the Rev. Dr. Cameron's garden at Richmond, and also of comparing specimens of the respective trees with the figures of the species in Brown's "*Forest Flora of South Australia*," I have no hesitation in recommending that Cunningham's name should be restored to our Red-flowering Iron-bark. The Victorian and South Australian *E. leucoxylon* is a "Gum" with smooth bark, of moderate size (seldom exceeding 20 or 30 feet), and wood remarkable for its *pale* colour. According to Brown, the bark is deciduous in December, and in the young trees "it is yellow or reddish-green in colour, quite smooth, and somewhat shining," while the wood, which "when dry is hard and tough, is of a yellowish-white or pale pinkish-white." The tree associated with this is a very deeply furrowed Iron-bark, common to several places on this side of the Dividing Range, as well as in the interior. The bark of it is persistent, and the wood, though not so tough as that of the White Iron-bark (*E. paniculata*, Sm.), is of a *very dark* colour, and useful for fencing and carpenter's rough work. The late Sir William Macarthur when collecting woods for the Paris Universal Exhibition of 1867, did me the honour to consult me about this Iron-bark, and having, by my direction,

found a tree suitable for his purpose not far from Lansdowne Bridge on the Liverpool-road, he procured specimens of the timber. According to Sir William, the average height of the species is from 40 to 60 feet, with a diameter of 18 to 30 inches, but in other localities it rises sometimes to 80 or 100 feet, with a proportionate diameter, and affords a considerable amount of timber. This tree possesses a large quantity of kino in its bark, which resin is little inferior to that procured from *E. siderophloia* (Benth.), and is used medicinally in cases of dysentery.

From a general view of the "White Gum" of South Australia and Victoria, and the "Red-flowering Iron-bark" of New South Wales, no practical man would suppose that they could be varieties of one species; nor, indeed, according to Baron Mueller's cortical system, would they stand even in the same section, the one belonging to the *Leiophloia* and the other to the *Schizophloia*. But even supposing that the differences of bark and wood may have arisen from geological considerations, or the influence of climate, the two trees differ in other respects.

In the "White Gum," the true *E. leucoxyton* (F. v. M.) the young leaves are opposite and sessile; the flowers large, of a deep red colour, and generally in threes; the pedicels longer than the peduncles; the leaves inclining to ovate-lanceolate, somewhat thick, and abounding with volatile oil; and the fruit large with a thick rim; whilst the anthers open at the top in pores. In the "Red-flowering Iron-bark," the young leaves are alternate and stalked; the flowers smaller, of a lighter colour, and in umbels of six or seven florets; the peduncles and pedicels longer and nearly equal; the leaves thinner and more lanceolate; the fruit smaller with a narrower rim and more ovate in shape; whilst the anthers are very small with many of the outer stamens anantherous.

The "Red-flowering Iron-bark," as well as the "Red-flowering Gum," have occasionally white flowers; but the character of the bark and wood, the general habit of the trees, and the differences noted (though not perhaps always constant), indicate that *E. leucoxyton* and *E. sideroxyton* must be regarded as distinct species.